

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013706**Date Inspected:** 13-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

**Bay 11**

This QA Inspector randomly observed no apparent welding related work being performed in Bay 11.

**Bay 10**

This QA Inspector randomly observed the following work in progress in Bay 10.

Match drilling with magnetically mounted drills through previously scored holes into PCMK south tower, top of lift 3 and bottom of lift 4, at the lift3/lift 4 joint, skin B, from the outside in. No template or exterior splice plate was being used.

**Trial Assembly Area**

This QA Inspector randomly observed the following work in progress in the Trial Assembly Area:

ZPMC welding personnel performing weld repairs without a Quality Control (QC) inspector present for a period exceeding 30 minutes. This QA was present in the area from 20:50 hrs to 21:30 hrs. This QA notified ZPMC Certified Welding Inspector (CWI) identified as ZPMC CWI Wu Zhi Cheng (QC1) and QC inspector identified as Mr. Wang Li Yang, who was not a CWI, of this issue. Both inspectors were located in the remote QC office near segment 7CW in the trial assembly area. Both inspectors were unaware that the above mentioned repairs were

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being performed. The weld joint is identified as CA048-004. The Y locations as recorded on the material are 3455mm and 11540mm. Welders were identified, respectively, as 048047 and 058087. The welds were previously tested and rejected using the ultrasonic testing (UT) method. The weld joint is a complete joint penetration (CJP) corner joint joining deck panel DP667A to edge panel EP094A. Caltrans Special Provisions, Section 8-3.01 states the following: QC inspections shall be provided to ensure continuous inspection when any welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors continually present on the shop floor or project site when any welding operation is being performed, and (2) having a QC Inspector within such close proximity of all welders or operators so that inspections by the QC Inspector of each operation, at each welding location, shall not lapse for a period exceeding 30 minutes. See the photo below. This QA Inspector informed QC1, ZPMC QA Inspector Wang Lu, and ABF Representative Li Jing Bo that a Caltrans Incident Report (TL15) would be generated concerning the above noted issue.

SMAW welding of hold-back weld joints DP656-001-013, 014 located inside PCMK OBG 7E, deck plate stiffeners to deck plate, at the 7CE/7DE joint, south (bike path) side. Welder was identified as 037932. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Li Yang, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-4114-1.

## Heavy Dock

This QA Inspector randomly observed the following work in progress on the Heavy Dock:

ABF Representative Zhao Ying Sheng informed this QA Inspector that no welding related work was being performed on the tower trial assembly and all ZPMC work crews had finished for the night. This QA Inspector observed the ZPMC crews exiting the tower trial assembly at approximately 2200 hours.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

As noted above.

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### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Goulet,George
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Dawson,Paul
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QA Reviewer
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